SPECIFICATION AMENDMENTS

Please rewrite the paragraph beginning on line 5 of page 1 as follows:

Many recent implementations of digital wireless communication systems (wireless or cable-based systems, for example) use Orthogonal Frequency Division Multiplexing (OFDM) for environments where there are strong interference or multipath reflections. However, one disadvantage of using OFDM is the use of a Fast Fourier Transform (FFT) and an inverse FFT (IFFT) in the demodulator (for an OFDM transmitter) and modulator (for an OFDM receiver), respectively. In this manner, the calculation of the FFT and inverse FFT may add a considerable ~~all the~~ amount of complexity to the OFDM transmitter/receiver due to the large processing block that is required on each end of the communication link.

Please rewrite the paragraph beginning on line 13 of page 5 as follows:

In contrast to the conventional OFDM receiver, the receiver 10 (Fig. ~~2~~ 1) includes the DFT engine 18 that calculates the frequency coefficients for each transformation pursuant to the signal flow diagram 130 that is depicted in Fig. 5. The results of the signal flow diagram 130 may be simplified down to the following mathematical relationship:

Please rewrite the paragraph beginning on line 5 of page 9 as follows:

In this manner, adjacent OFDM symbols in time are assigned different known scrambling codes, so that the coefficients of adjacent sliding DFT windows may be correlated to identify the individual symbols and the best point in time to demodulate them. Fig. 9 further depicts an illustration ~~150~~ 250 of a technique that may be applied to each sliding window DFT 60. As shown, each sliding window DFT produces coefficients 64 that are related to the output subcarriers and coefficients 66 that are related to the pilot tones that are associated with a particular OFDM symbol. The coefficients 64 and 66 of a particular sliding window DFT 60 are correlated with the pilot code A (via a correlator 252) and the pilot code B (via a correlator 258) to produce two respective correlation signals 260 and 262. In response to the sliding window DFT demodulating pilot tones that are scrambled via the pilot code A, the signal 260 peaks (as

indicated by ~~160a~~ 260a) to indicate detection of the pilot code A. Similarly, in response to a particular sliding window DFT demodulating pilot tones scrambled via the pilot code B, the signal 262 peaks (as indicated by the peak 262a) to indicate detection of the pilot code B.